

THE HIGHER INSTITUTE OF ELECTRONICS

BENI WALID

The Embassy of the Socialist People's Libyan Arab Jamahiriya

The Institute of Electronics offers mainly for Undergraduates and lectures are conducted in English. Students take a three-year course in Electronics and Communications Engineering leading to a B.Sc. Degree. The Institute is situated at Beni Walid, 178 km from Tripoli, where all students and staff are accommodated on campus. Members of staff are strongly encouraged to undertake their own research.

- Vacancies for staff members exist in the following fields:—
1. Mathematics
  2. Physics
  3. Engineering Drawing and Descriptive Geometry
  4. Mechanical Engineering
  5. Mechanical Workshop Supervisors
  6. English Language (preference will be given to native speakers with TEFL certificate)
  7. Circuit Theory
  8. Electronics
  9. Computer Sciences
  10. Communications
  11. Instrumentation and Control
  12. Microwave and Radar Technology
  13. Technicians are also required to run the various Laboratories of the above fields
- The minimum qualifications for Academic Staff are M.Sc. and/or Ph.D. (teaching experience is preferred).
- The minimum qualifications required for Technicians is a City and Guilds Technicians Diploma or equivalent (preference will be given to candidates with previous experience).

SALARY GRADE (ANNUAL)

Position	From	To	Annual Increment	Total Increment
Professor	5700 LD	8480 LD	120 LD	8
Associate Prof.	5040	5700	120	6
Assistant Prof.	4580	5040	80	6
Lecturer	4100	4580	87	6
Ass. Lecturer	3510	4158	100	6
Lab. Technician	Salary dependent upon qualifications and experience			

- In addition staff members receive the following benefits:—
1. The Institute provides tourist class air tickets for the staff member, his wife and four members of his family under the age of 18 to and from the place of recruitment to Libya.
  2. The Institute will pay 25% of the excess baggage charge at the beginning and end of the staff members service.
  3. Fully furnished accommodation is provided by the Institute.
  4. A tax-free gratuity of one month's salary is given for each subsequent year of service.
  5. The Institute provides full medical service for staff members and their families. Successful candidates will take up teaching posts in September, 1977. Interviews will be held in London in mid-July.
- Suitably qualified persons are invited to send curriculum vitae to: Eng. Mohammed Sufi, Higher Institute of Electronics, P.O. Box 12041, Tripoli, Libya.

OVERSEAS TEACHING POSTS

Lecturer or Assistant Professor or Associate Professor (Jordan)

Department of Architectural Engineering, University of Jordan, Amman, Jordan. To lecture to undergraduate students in any branch of Architectural Engineering. Candidates must have a higher degree or equivalent qualifications together with 3 years' teaching or 5 years' professional experience. Salary: Lecturer, £4,031 pa; Assistant Professor, £5,473-£11,678 pa; Associate Professor, £7,578-£13,684 pa, according to qualifications and experience. 77 AU 61

Lecturer in English (Poland)

Department of English, University of Lodz, Poland. MA in Theoretical or Applied Linguistics or Methodology and at least 2 years' relevant experience. PhD desirable. This position is for teaching and research. Salary: £4,100 (for 21.2 1/2 months) (24.2 1/2 months at present rate of exchange) tax free plus housing subsidy of £225 pa. Benefits: free furnished accommodation; medical scheme; employer's portion of UK superannuation 1 year contract renewable. 77 CU 100

ELT Adviser (Senegal)

Ministry of National Education, Dakar, Senegal. To advise the Ministry of National Education on all aspects of E.L.T. in Senegal. Coordinate ELT methods, review examinations, coordinate teacher training, organise refresher courses for teachers and inspect schools. Degree: preferably in English or Modern Languages. MA in Applied Linguistics or TEFL (two year) Diploma in ELT. Minimum of 5 years' appropriate overseas experience and knowledge of French essential. Salary: £3,210 pa-£7,054 pa + 10 per cent inducement allowance. Benefits: free accommodation; overseas and children's allowances and other benefits; 8 year contract renewable. 77 LE 13

Senior Lecturer in English (Poland)

Department of English, Wroclaw School of Pedagogics, (Pedagogical University), Wroclaw, Poland. MA in English literature and relevant teaching experience. PhD desirable. Salary: £4,100 (for 21.2 1/2 months) (24.2 1/2 months at present rate of exchange) tax free plus housing subsidy of £225 pa. Benefits: free furnished accommodation; medical scheme; employer's portion of UK superannuation; 1 year contract renewable. 77 CU 99



AUSTRALIA ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY PRINCIPAL LECTURER-FOOD SCIENCE & TECHNOLOGY SCHOOL OF BIOLOGICAL & CHEMICAL SCIENCES

Applications are invited for this position which will fall vacant on 30 June 1977 upon the retirement of Dr. H. Klirhaus. The appointee would be responsible to the Head of the School for:—

- the conduct of the courses leading to degrees and diplomas in Food Science and Technology;
- maintaining liaison with the food and related industries;
- conducting research and investigation consistent with the objectives of the School.

Applicants should possess a degree or diploma in food science and technology or some suitably related discipline, together with extensive experience in industrial or research or academic situations involving food science and technology. Salary A\$23,542 per annum Ref. no. 120/17/AZ Closing date 31-8-77

Intending applicants should obtain a Schedule of Duties from the Staff Branch, Level B, Building 15, 124 La Trobe Street, Melbourne, Telephone (03) 345 2822 ext. 2488. Applications should be addressed to the Registrar, R.M.I.T., Box 24769, G.P.O., Melbourne, Victoria, 3001.

UNIVERSITY OF MELBOURNE DIRECTOR OF SPORT AND PHYSICAL RECREATION

The University of Melbourne is currently reviewing the organisational structure and content of its sporting and recreational activities and the numerous associated facilities. It wishes to appoint a person who will play a significant role in the further development of policy making in this important area. This appointment will be to a newly established and challenging position of Director of Sport and Physical Recreation. The successful applicant will have major responsibilities in the development and administration of sport and physical recreation within the University. The responsibilities of the position will also embrace those currently performed by Mr. W. K. Ticker, Secretary/Treasurer of the Recreation Grounds Committee, who will retire in December, 1977. There are presently 44 active sporting clubs organised into a Sports Union and the new Director will be required to liaise with student representatives, sporting associations and other bodies to achieve an effective administration of these clubs. The Director will also have responsibility for the organisation of the allocation of resources in connection with these clubs through the University Sports Union Council. In addition the Director will liaise with the student associations of the University Faculties, Colleges and Halls of Residence. Qualifications: It is expected that the person appointed will be an enthusiastic and capable administrator, with an ability to relate to young people. Such a person will also have a wide knowledge of sport and recreation and the ability and enthusiasm to develop new sporting and recreation programmes, including "unstructured" recreation, in a University environment. Tertiary qualifications will be an advantage. Salary: Appointment will be at the Senior Administrative Officer level within the salary range of A\$18,370-A\$21,021 per annum. The level of appointment will be according to qualifications and experience. Further information is available from Mrs. C. Hayward, address as below. Closing date for applications is 22nd August, 1977. Written applications quoting position number FN.229 should be addressed to the Staff Officer, University of Melbourne, Parkville, Vic. 3052.

UNIVERSITY OF MELBOURNE NATAL PUBLIC ADMINISTRATION STATE DEPARTMENT

JOINT AFRICAN STATE DEPARTMENT IN PARTMENT OF COMMUNITY DEVELOPMENT

Applications are invited for the following positions:—

- Principal
- Physician
- Senior Lecturer

The appointment will be for a period of 12 months. The post will be on a full-time basis. The salary will be according to the Public Service Commission scale. Applications should be sent to the Staff Officer, University of Melbourne, Parkville, Vic. 3052.

Courses

University of the West Indies DEGREE OF M ED WITH TEACHING OF ENGLISH AS A FOREIGN LANGUAGE (Jointly with University College, Cardiff)

Applications are invited from graduates with appropriate teaching qualifications and/or experience for admission in October, 1977 to a one-year or two-year course leading to the degree mentioned above. The course will include a Teaching of English as a Foreign Language component. The course will be taught in English. Candidates should have a minimum of 2 years' experience in teaching English as a foreign language. Further details may be obtained from the Registrar, UWI, St. Augustine, Trinidad, C.F. 1 3NU.

City of Birmingham Polytechnic POLYTECHNIC LIBRARIAN

required to exercise overall control of all library resources throughout the Polytechnic and to lead the development of a large library and its services. This development includes the immediate establishment of a new Main Library in a new building.

Salary scale: Head of Department Grade VI: £8,037-£8,913 + 1976 and 1977 supplements as appropriate. Further particulars and application form (to be returned by the 15th July, 1977) from: The Personnel Officer, City of Birmingham Polytechnic, Room B.310, Perry Barr, Birmingham B42 2SU.

THE TIMES Higher Education SUPPLEMENT

Minister's decision clears way for UK science foundation

by Clive Cookson science correspondent

A United Kingdom Foundation for Science and Technology, the subject of discussion for decades and of active planning behind the scenes for four years, is about to be born. The foundation will have its own premises in London which will house a major science centre. This is to serve, among other things, as a headquarters for many smaller scientific societies and as a much-needed meeting place for the different branches of science and technology. Its primary commitment will be to the development of interdisciplinary cooperation.

Plans for the creation of the foundation have been held up by the refusal of Kensington and Chelsea Council to give planning permission for the science centre to be set up in a large Edwardian building presently used as a convent school on the corner of Chepstow Villas and Denbigh Road in Notting Hill.

However, Mr. Peter Shore, the Environment Secretary, last week overruled the council, after a public inquiry and permitted the conversion of the six-storey red-brick block to a science centre.

His letter announcing the decision said the property was well suited to the centre "the need for which is not in dispute", that it would be a commercial intrusion into a highly desirable residential area, as the council had claimed, and that members of learned societies would not disturb the peace of the district more than the schoolchildren do.

The way is now open for the site's present owners, the Convent of Our Lady of the Sacred Heart, to set up a foundation organising committee, headed by the Earl of Sutherland, in a deal thought to be worth at least £1m.

The steering committee decided this week that it was not ready to reveal details of its plans and the way they will be financed, as negotiations are not yet complete.

Hundreds of learned societies, large and small, will soon be receiving questionnaires from the organizing committee, asking whether they are interested in moving into the centre, and, if so, how much space they want and on what terms.

The financial plight of many such institutions, especially the smaller societies, has been a powerful force behind the new foundation. It is felt that they will be able to overcome the problems of inflation,

brought out in a recent joint report of the Royal Society and the British Academy, more successfully if they are grouped together with common round the country as at present.

Dr E. G. West, of the Institution of Metallurgists, who is vice-chairman of the organizing committee, says that although the idea of a London-based science and technology foundation had been discussed for some 30 years or more, the present initiative could be traced back to a lecture at the Royal College of Arts in 1973.

The speaker was a chemist from Australia, Mr J. E. Cummins, who described how he had helped to set up Clunies Ross House in Melbourne—home of about 80 scientific organizations and thriving meeting place for scientists and technologists. His paper inspired a group of scientific institutions to get together under Lord Shannon and Dr E. G. West to plan something similar for Britain.

Officers of more than 20 institutions have been actively involved in the organizing committee, Dr West says.

There is no question of official Government finance for the scheme, and a formidable fundraising drive is likely to be needed.

London bitter about grant shortfall

by Frances Gibb

London University may appeal to the University Grants Committee about the level of its new grant for 1977-78 after complaints from many of its schools and colleges about their share of the total.

The complaints have followed the recent allocation of London's £12.6m block grant among the schools and colleges. Many principals, who have protested to the clerk of the university court, feel that London has fared even worse than other universities, where the average estimated shortfall in next year's grant is between 3 and 4 per cent.

At London, however, the colleges have estimated shortfalls of 4 per cent (Chelsea and King's), 5.2 per cent (Westfield), 6 per cent (Bedford) and 7 per cent (University College).

Mr R. Stewart, clerk of the court, said this week that the university would have to consider what, if anything, it would do about these reactions and that representation to the UGC was a possibility.

In letters to heads of department and the court, Lord Amman, provost of University College, has said that UCL never doubted that the cut imposed by the Government on universities would fall more heavily on London than elsewhere. That was because London had a large number of medical schools which were extremely expensive to maintain, and had inflicted upon them by the Department of Health and Social Security costs against which they had no redress and for which the university was not compensated.

In another letter to the court, Dr Brian Thwaites, principal of Westfield College, says the Government's assumption of five per cent pay inflation was "quite unrealistic". He asks what level the Government would allow salaries to rise before supplementing the universities' grant: every one per cent increase in salaries for which they were not supplemented cost the college an extra £20,000 on present staffing levels.

In the letter of allocation the clerk of the court said that provision had been included for inflation in 1977-78, but at a much lower rate than the 5 per cent (pay) and 12 per cent (non-pay) on which the UGC bases its allocation.

The court fully expected that schools would find their new grants for 1977-78 "seriously inadequate in relation to their estimated grant needs for that year".

It estimates that the reduction in income in 1977-78 compared with 1976-77, based on the UGC's assumptions, would be of the order of 4 per cent and more in some cases.

Mr John Akker, deputy secretary of the Association of University Teachers, said the association was asking the UGC for information on how it calculated its allocations.

Recurrent grants for 1977-78 of some London schools and colleges

Bedford	£m
Birkbeck	3.253
Chelsea	4.098
King's College	4.932
London School of Economics	4.152
Queen Elizabeth	1.829
Queen Mary	4.844
Royal Holloway	2.025
School of Oriental and African Studies	3.006
Imperial College	14.980
Middlesex Hospital Medical School	2.265
St. Bartholomew's Hospital Medical College	1.919
University College Hospital	1.545
University College School	1.429
King's College Medical School	1.429
British Postgraduate Medical Federation	6.144

Mrs Williams, page 4

Sultan's delight—£100,000 cheque

by Sue Reid

The University College, Buckingham, has received a surprise donation of £100,000 from the Sultan of Brunei. A cheque, in a brown envelope marked "not a circular" and signed by the crown agents of Brunei, arrived unheralded at the college last week.

Some of the money has already been earmarked for the modernization of a former Franciscan monastery building by the college, known as the "independent university" earlier this year. It is the largest single amount to be received since the college opened two years ago.

Professor Max Beloff, the principal, said this week the money was welcome but he denied that Buckingham, which relies heavily on private donations alongside fee charges, was in financial difficulties.

"The cheque arrived without an accompanying letter and we can use the money for whatever purpose we want", he said.

There had been indirect contact with the Sultan about the college but the gift had not been expected. It was a coincidence that a Minister in the Brunei Government was planning to send his son to the college next year.

The Franciscan monastery, taken over from a Buckingham secondary school, will house new tutorial rooms, staff accommodation and a sophisticated language laboratory financed by the Volkswagen Institute. Student members are expected to reach 250 next year, 100 more than the current level. Applications for the beginning of the college's next academic year in February are slightly up on 1976. More than 80 offers in prospective students have already been made for 1978 when two new courses leading to the college licence in accounting and financial management and European studies, are to be added to the curriculum.



"Typical of our luck, Beryl, the Sultan of Brunei has sent us his laundry bill."

Sir Ieuan is new BA secretary

by David Dickson

Sir Ieuan Maddock, who retired last year as chief scientist at the Department of Industry, is to succeed Dr Magnus Pyke as secretary of the British Association for the Advancement of Science.

An outspoken supporter of applied science and engineering, Sir Ieuan's appointment coincides with a growing feeling within the BA that the association's efforts should help stimulate the application of science to Britain's economic and social needs.

Speaking at last year's annual meeting at Lancaster, Sir Ieuan claimed there was little evidence that a high national preoccupation with research had been matched in engineering industries.

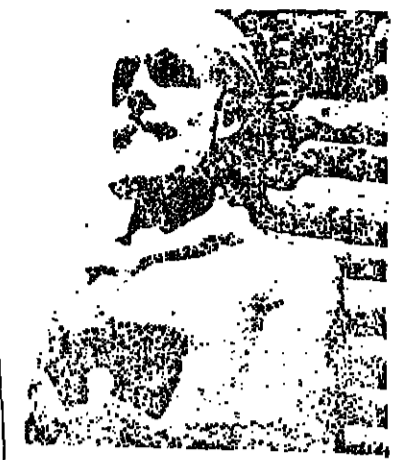
"I have become more and more convinced during the past decade that we must become more concerned with applying technology rather than generating it."

A graduate of the University of Wales, Sir Ieuan has spent his working life in Government service, primarily in explosives and armaments research. He was appointed head of the field experiments division at the Atomic Weapons Research Establishment in 1960, and assistant director of AWRE in 1965.

He was controller responsible for industrial technology in the then Ministry of Technology, from 1967 to 1971, when, following the Rothschild inquiry, he was appointed Government sponsored research, he was appointed chief scientist. He retired at the beginning of this year.

Sir Ieuan will take over from Dr Pyke on September 7, immediately following this year's annual meeting of the BA at Aston University in Birmingham. Dr Pyke will deliver a valedictory lecture at the meeting entitled "The Communication of Science—An Ethical Imperative".

Contents South Africa



The Voortrekker monument is a major symbol for South Africa's National Party. Jack Spence reviews seven books on that country's past and its possible futures, 16

Poly Profile Sue Reid visits Preston Polytechnic, the last to be designated, 7

Marxist historian "Few of our revolutionaries believe their own cant"—David Walker talks to Eugene Genovese, American historian of the deep South, 9

The Commonwealth Geoffrey Marshall reflects on the constitutional niceties of the Commonwealth, 15

Darling buds of Kent Dr Harry Darling, retiring principal of Wye College, talks to Clive Cookson about agricultural education and research, 8

Play of our time Guido Almansi discusses adaptations of Shakespeare in the light of the Marowitz Merchant of Venice, 11

Teaching aids Patricia Santinelli meets Dr Robin Moss, the new director of Leeds University's audio visual service, 9

Don's Diary	5
Noticboard	6
North American News	12
Overseas news	13
Letters	14, 27
North American news	12
Books	15-19
Classified index	20

# Marxist 'event of year' expects more than ever

by David Dickson

More than 1,200 are expected to attend the ninth Communist university of London, a week of discussion of Marxist theory and politics which opens tomorrow at University College London and is claimed by its organizers to be the "biggest Marxist event of the year".

A wide range of courses embrace topics that extend from nineteenth-century realism painting through recent developments in working-class history to "60 years of Soviet Power" and "Strategy or Revolution in Western Europe".

Pre-conference registration has been considerably higher than last year, and the organizers expect an increase of about 20 per cent. Roughly half of those who have already registered are students and lecturers in universities and polytechnics, most of the rest coming from political organizations and the trade union movement.

"The Communist University has two main aims," explains Mr Sully (ibid), who is this year's chief organizer and a research student at University College London. "The first is to help students and others involved in higher education to develop a critical approach to the material that is taught in their courses. At the same time, we hope that the discussions will make an important contribution to the development of Marxist theory. The week will be divided into 23 specialist and 17 general courses. Specialist topics include art and design, education, law, industrial relations, science and production, and health and social care (including a visit to a factory, mine or building site)."

## Tighten belts warning by Aberdeen

All members of staff at Aberdeen University have been advised of the gravity of the university's current financial position, and asked "individually and collectively" to co-operate in making stringent economies.

A copy of a letter circulated by the principal, Sir Fraser Noble, to heads of departments early in June, has now appeared in the bulletin, a monthly newsletter sent out to staff. "Reasonably conservative estimates suggest that even if we neglect the whole of the surplus that careful housekeeping has made possible for 1976-77, we shall be about £0.25m in deficit at this time next year. The provisional allocation for the year then starting, which we shall be entering already in deficit on current accounts, is even less generous," states the letter.

The announced recurrent grant for the financial year 1977-78 was less in real terms than that for the year just ended. There is now a consensus among vice-chancellors that 1977-78 would prove to be the most difficult year financially since the economic crisis began. Aberdeen appeared to have sustained a reduction in real income twice as great as the national average and it was unlikely that the University Grants Committee would be able to give any additional assistance.

It was against this gloomy background that the court had to instruct higher education to support the university economy throughout the year. The court has reaffirmed instructions that all vacancies for academic and other staff must be carefully scrutinized and approval for filling them would normally be given only where it was essential to meet existing necessary commitments. The search for rationalizing services would be examined and it would be necessary to accept some lowering of standards.

Even in the present circumstances, the court felt would be inappropriate to impose a complete ban on attendances at conferences and meetings of learned societies but in other cases a complete embargo might have to be imposed.

In the longer run, if next year's economic constraints continue, the quality of the work the university does and the ability to pay its staff will be at stake," the principal's letter concludes. PESS.

## Postgrad awards inadequate Cranfield head complains

by Clive Cookson

Britain's postgraduate grant system needs a fundamental review, according to Dr Henry Chilver, vice-chancellor of Cranfield Institute of Technology. Cranfield is finding increasing difficulty in awarding students such as those given by research councils, and inadequate for its experienced postgraduate students on higher degree courses. Dr Chilver writes in the Institute's annual report. The average age of Cranfield's students is 26, most having worked in industry for a number of years.

"If these awards were financed at a more appropriate level and possibly in smaller amounts, they could ensure a supply of highly skilled postgraduate manpower for key positions in industry," he suggests. The report shows that Cranfield now receives more industrial support for its postgraduate teaching and research than any other institution of higher education in the United Kingdom. Thirty per cent of its total income of £8.2m for the year 1976/77 was derived from sponsored research and development studies; the Department of

Education and Science recurrent grant provided 52 per cent and tuition fees seven per cent.

The number of students who attended courses reached a record of 1,000, with an average of 1,000 students resident on any one day. The institute assisted more than 1,000 industrial firms over the year, through teaching, research and advisory services.

"Cranfield students - almost without exception - return to careers in industry, and the institute's teaching offers a most efficient means of educating and training graduate engineers, technologists, applied scientists and managers in the early years of their careers," writes Dr Chilver.

A new organizational structure was approved by Cranfield's Council this year, following the incorporation of the National College of Agricultural Engineering into the institute. There are now five faculties instead of two - manufacturing technology and production management, agricultural engineering, science and technology, engineering, and management and administration - containing 16 academic departments and research units.

## Full-time BE offered to FE teachers

by Judith Judd

The first bachelor of education degree for teachers of further education will begin at Wolverhampton Polytechnic in September. The new full-time course has been designed by lecturers from the technical and further education college which becomes part of the polytechnic in September.

The course, which has already received validation from the National Academic Award for those who have done a first higher education course or equivalent qualifications, might be an Open University or a social sciences one. Some sociology of education courses will be included in the programme. The programme is expected to be completed in two years. The aim will be to enable students to teach further education.

Mr John Kenard, the course leader, said the course would not be a conventional course where education and arts are divorced.

The first two terms will be practical work and theory. The first two weeks of teaching practice will be devoted to curriculum design for which students will complete a study in their field.

Mr Kenard hoped it would be possible to offer a full course which would require initial DipIte or equivalent. Students would be expected to complete a study in their field before starting the BE. He replaced the present certificate education course at the college.

## Rate support grant talks begun Mrs Williams says

Discussions with local authorities about the support grant to be awarded to schools in the next financial year have started, Mrs Williams, Secretary of State for Education and Science, said last week.

In an indirect reference to the rate support grant, she said she was pleased to see that local authorities and the Department of Education had agreed to discuss the grant in other ways, and resources would be made available to help in the grant.

She told the Schools Officers' summer conference at Loughborough: "If I cannot give you a guarantee that we will have the grant, but I can guarantee that we will be able to help in other ways, and resources will be made available to help in the grant."

## Schools want pupil follow-up

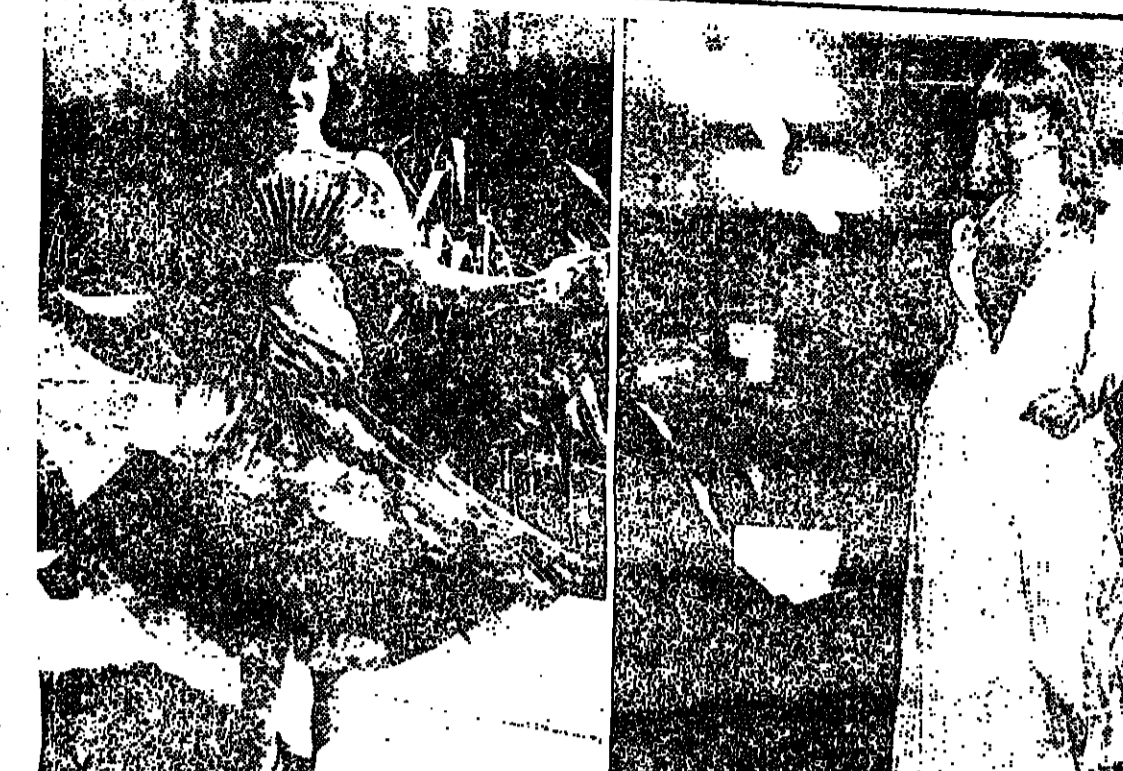
Schools would welcome more feedback from universities and polytechnics about the academic progress of their former pupils and the adequacy of their preparation for higher education.

A conference of school heads organized by Chelsea College, London last week, on "routes to higher education" agreed that lecturers and tutors should know how their students are getting on. Schools and sixth form colleges could use the information to improve their teaching methods, it was said.

## Marine technology head appointed

The Science Research Council has appointed a 49-year-old Mr Adego as its first director of marine technology.

Mr Adego, who is on secondment from British Petroleum, will be in charge of the SRC programme of work on the involvement of the technology and the production of graduate engineers required for the exploitation of sea and seabed resources.



Modelling students at the London College of Fashion display designs by students on the college's light clothing and tailoring courses. The 30-minute fashion show was part of an exhibition last week.

## OU lecturer not victimized tribunal told

by Sue Reid

The Open University's controversial art and environment course, which emphasizes student creativity, provoked angry letters from students when it was launched last year. An industrial tribunal in Bedford has been told. But Professor John Sparks, dean of the university's faculty of technology, told the hearing which was examining a claim for redundancy payments by Miss Susan Trisman, a former member of the course, that academics who designed the programme were not victimized as a result.

He denied that the university's decision to renew Miss Trisman's contract when it expired at the end of last December was because she was blamed for the course material. Following the acceptance of the course by an internal university committee, "everything was done to ensure its success."

Professor Sparks said there were no tenured appointments of women academics in the faculty of technology. There was no full-time job for Miss Trisman after December. Her abilities were not in doubt regarding her work on the course.

## Youth groups' mixed feelings about Holland report's £96m

by Judith Judd

The Government's commitment to spend £96m a year implementing much of the Holland report was welcomed with some misgivings by youth organizations this week. The National Union of Students was pleased by the size of the sum but worried that the specifically vocational and short-term nature of the Manpower Services Commission courses, coupled with their mandatory nature, will tempt young people away from continuing their full-time education through orthodox further education courses.

The programme, which will help 230,000 young people each year, further education establishments and skill centres. Participants will receive £18 a week including £2 travelling expenses. There will be work experience as well as work preparation courses.

The NUS said that the allocation of an extra 10,000 further education places over the next three years did nothing to integrate the competing vocational and educational opportunities open to young people. Miss Sue Siddons, the new president of the NUS, said that some students sitting aside on the same course getting paid vastly different sums. Unemployed students leaving £9 a week but students getting paid one or two pounds more than those who do not. FE students who will get no award whatsoever from their I.e.A.

The union's policy is to seek minimum employment for all 16 to 19-year-olds in full-time education. Mr Tom Sheehane, general secretary of the British Youth Council, said the programme was very welcome but there were still several problems to be sorted out. The union was anxious that young people should be on the local boards which will select candidates. The Council is planning to get the consumers' view of the programme by holding thousands of meetings of young people in MSC centres, further education and at school.

The National Association of Teachers in Further and Higher Education said that 10,000 more places for further education was not enough. The additional building programme of £27m for further education was too little and too late.

# Government accused of hedging on tuition fees

by Frances Gibb

The Government appears to be backing down on its commitment to raise an extra £14m from tuition fees in 1978-79, according to a parliamentary answer given by Mr Oakes, Minister of State overseeing higher education, last week.

In answer to a question from Dr Keith Hampton MP on whether the Government was still committed to raising fees or not, Mr Oakes said: "The answer is that I am not sure. It is not clear whether the £14m will have to be raised from another area of higher and further education, and anyway the figure was expressed in 1975 prices, he said."

A cautious welcome was given to Mr Oakes's statement from bodies concerned with tuition fees increases. Mr Rupert Bristow, deputy executive secretary of the United Kingdom Council on Overseas Student Affairs, said: "This is a welcome sign that perhaps the Government is rethinking on fees. It is what we have been pressing for in relation to inflation."

The VCOSA's request for a meeting with Mr Oakes on tuition fees for 1978-79 had been granted, he said. The council wanted to be involved in the decision-making this year rather than being told about it afterwards.

A spokesman for the Committee of Vice-Chancellors and Principals said it was pleased with Mr Oakes's response. It was in line with the VCVP's own comments to the Universities Grants Committee that it would not support a real increase in fees for next year.

The VCVP was asked by Mrs Williams, Secretary of State for Education and Science, to suggest other ways the £14m might be raised from further and higher education than from tuition and further fees, but it did not make specific proposals.

It said, however, that if the Government insisted on the savings, arrangements should be framed with Mr Oakes's statement from bodies concerned with tuition fee increases. Mr Rupert Bristow, deputy executive secretary of the

## Industry urged to invest in recruiting as in capital

Employers in industry and commerce should give as much attention to recruitment policies as they do to capital investment, the 1975-76 report of Leeds University careers service says.

Over the years, commercial and industrial employers were likely to have a wealth of talent from which to choose, it says. Recruitment, training and staff development were costly areas of investment and had a part to play in giving economic advance and promoting a more open society.

Figures from Leeds seemed to indicate a swing of the pendulum from the public sector to industry and commerce. That was probably not simply a recession, but a radical change in the fields of work in which many graduates, in particular arts graduates, have traditionally been employed.

The proportion of first degree students from Leeds entering industry last year was 17 per cent compared with 14 per cent the year before, and entering commerce and industry 5 per cent, the same as the year before. The proportion entering the public sector, however, other than education, dropped from 7 per cent in 1974-75 to 5 per cent in 1975-76.

The numbers entering teacher training continued to fall. One worrying aspect of those who did enter, however, was that more tended to teach history, geography and social studies than mathematics, physics or chemistry. There was an imbalance of graduates entering industry and commerce. "Only 15 per cent of graduates in arts and allied subjects went into these fields compared with 30 per cent of the scientists and applied scientists."

The report noted the contrast between the Institute of Chartered Accountants and accountancy firms, which sought to explain their recruitment policy, and the Law Society, Careers advisers had found difficulty obtaining information on the changing regulations on solicitors' training, it says.

Demand for articulated clerkships was high, however, exceed supply and careers services themselves had to take the initiative in collecting information on vacancies.

## Labour appoints student organizer

The Labour Party's first full-time student organizer began work at Transport House this week. Mr Michael Gapes, a former chairman of the National Organization of Labour Students, was appointed in the face of growing efforts from the Conservatives to win over the student movement.

Mr Gapes has been appointed by the Labour Party and will be paid by the party. He will work within the party's policy of supporting the present ruling group, the Broad Left, in the National Union of Students.

Mr Gapes said that, though he would not have resources as great as the Conservatives, he hoped to start a publicity campaign which would lead to the establishment of a more student Labour groups.

He also planned to organize the student vote for Labour in local elections.

## Prepare for end of oil boom-v-c

Scottish university students graduating this summer in engineering were charged at the Strathclyde University graduation ceremony this week with the task of preparing for the day when the oil boom ends. Professor A. M. North, the vice-principal, said research grants had come to the universities too late to affect the process of exploiting North Sea oil. The suddenness of the late response, but there was no excuse for not preparing now for the diminution of oil supplies at the turn of the century.

"It's my opinion," he said, "that we are now emerging from a long unproductive period, in the final stages of which society has commented that the engineering industry has 'let the country down' but had not explained that other side of the coin - the recognition reward and incentive given by society to its engineers."











# LETTERS TO THE EDITOR

## The last area of expansion

A chief education officer recently called provision for the 16-19 age group "the last area of expansion the English educational system will see in our lifetime". The Government's great debate put the focus on the transition from school to work; the Manpower Services Commission is spending heavily on training and palliatives against youth unemployment; now the Government and local authorities are girding up to reorganize the upper forms of secondary schools. The publication of this week of a review of the debate about the first stages of post-compulsory education by the National Foundation for Educational Research is timely not least because it discusses the educational grounds for tertiary colleges rather than starting negatively with the fact that many sixth forms will soon be too small to sustain a sufficient variety of A-level courses with acceptable staff-pupil ratios.

Several points made in the NFER report can be underscored. The first is to emphasize the role of local authorities in coming to arrangements of sixth forms, sixth form colleges, further education colleges and tertiary colleges that fit the population and geographical constraints of the area. Commissioners and officials have to be clear that further education has become a "dog's breakfast". However uni-

## Enter left, realistic president

Miss Sue Slipman, who took over as President of the National Union of Students last week, leads a union which has come of age. The NUS has abandoned the streets for the negotiating table. Its executive is consulted by ministerial bodies and committees. Its views are cogently and eloquently argued. It is no longer pursuing hopeless ideals but is concentrating hard on producing practical policies.

Miss Slipman's membership of the Communist Party is unlikely to change any of this. She has gained her reputation partly through her efficiency as national secretary and organization is now a key part of the president's job. The union's wide-ranging activities and its many contacts with ministerial bodies have made some sort of bureaucracy inevitable whether the ultra-left like it or not.

The new president has been critical of the rigidity of her own group, the Broad Left, and she is likely to be flexible and realistic in her policies. She is also a firm believer in democracy, and the Conservatives, who have made much capital

## Lessons learned from aids

When in 1965 the Brynmor Jones report on audio-visual aids in higher education recommended the establishment of central units to develop their active use, there was no specific aim that they should be used to cut costs in education.

These recommendations were of course made at a time of economic expansion—suggested figures for the setting up of the centres were £7m and £2.75m annually—and may look quite different in today's conditions. But it would be a pity if the lessons learned from the weeks that no evidence to show audio-visual aids cut costs had been presented to the Committee on the Future of Broadcasting led to the notion that AV had somehow failed. Cost effectiveness is what we need to be determined unless we know if the quality of education has changed for better or worse. This is an area where there is no ultimate proof, but the most positive indications in favour of audio-visual aids are the increasing use of audio-visual aids in television, sound recording, filmstrips and overhead trans-

## Ideology, words and witch hunts

Sir.—The end of term is not the best time to engage in academic debate. Nevertheless, the recent Martin Watson-Woolson-Hall correspondence requires some extra effort, since Marxists are energetic people, and we liberal humanists have only ourselves to blame if we eventually go under because of our own lethargy.

Obviously Mr Watson is not alone in his alarm at contemporary developments (THES, June 17) but the chances are that the point of view he represents will be lost in the abuse, innuendo and shifty argumentation that he and you have provoked. The danger is that the rest of us will want to keep well out of it, feeling that nothing can be done with people who so flagrantly use words entirely as it suits their convenience. Is that the intention?

I too find his letter bizarre, and I wish he had addressed his points directly and immediately involving the machinery of university investigation. But "witch-hunting" and "hatchet job" do not constitute an adequate response. This kind of language is used when thought is being stopped, or when one thinks that anyone else thinks; it indicates the level at which the writer proposes to operate and warns those who do not to stand clear, and I am surprised that Mr Hall should want to do this.

His openness and arrogance combine to the same effect in Mr Woolson's letter (THES, July 1). It is plain nonsense to refer to the mere appearance of Mr Watson's letter as representing a "guttersnipe level of publishing" because few people who have so little regard for language and for evidence afford to complain of "sneer tactics".

In that connexion, it is the fact that Mr Watson has never heard of Mr Watson supposed to be his own ground. Already Miss Slipman has taken a stand along with the rest of the executive, against the exclusion of Jewish societies from student unions. If she succeeds in making more students see the need to deal with Mr Watson's letter, her minor contribution to dispelling the inertia which may otherwise overtake the Broad Left.

The main threat to NUS in the next two years comes not from external forces or from policies but from financial problems. The union has just staggered through the crisis which followed the collapse of the travel company and now faces the task of refurbishing its decrepit headquarters in Endsleigh Street. This will take two years and will be raised by a bank loan. The union's total annual subscription income is £340,000 and it will be some time before it can look for much help from the managing division. The union is optimistic that its collapse will be against the interests of all students.

Scottish system myths

Sir.—The several English educationists who have been heard by Mr Henry Cowper (THES, June 24) to express admiration for the diversity of the Scottish higher education are right to do so. They probably know the system but others who do not should steer clear of the kind of biased survey which Mr Cowper presents.

Mr Scot who has lived most of his life in Scotland "claims to know only too well the 'smug mythology' surrounding the Scottish educational system. It is a pity that his close acquaintance with the country has not prevented his considerable ignorance of Scottish central institutions. A few minutes with the readily available Handbook of the Scottish Central Institutions would help to dispel a few of the myths which he has clinging to him."

Perhaps his misguided belief in the monolithic nature of CIs is derived from the names of the colleges: he might be surprised to learn that Duncan of Jordanstone College of Art has courses in catering and hotel-keeping; that Dundee College of Technology has courses in accountancy, business studies, data processing, industrial engineering and management; and that Dundee College of Technology has courses in clinical technology, commerce, educational technology, health visiting and nursing.

Of course, these colleges have many other courses, sufficient evidence to discount Mr Cowper's statement that only one or two of the larger CIs have been able to diversify (he, no doubt, had Paisley College and Robert Gordon's Institute in mind).

Mr Cowper believes not only that the CIs are monolithic but also

## AV and costs

Sir.—Under the heading "Audio-Visual Aids" your issue of 17 July 1965 (THES, July 17) you report Lord Auman as referring to no evidence that audio-visual aids cut the cost of education. This was presented to the Committee on the Future of Broadcasting, was it not?

If it were so, it was a grievous fault: revealing the Council for Educational Technology representatives offered no such evidence when they met members of the committee, nor did the committee members question us on the issue. I had assumed this to be because neither they nor we thought it relevant to the committee's deliberations.

There is, however, clear evidence that some training can be achieved more effectively and more cheaply by applying the methods of audio-visual technology—learning incidentally rather than by the use of audio-visual aids. It is more difficult to show such savings in quantitative terms: education as distinct from training aims are seldom as defined in their own achievement, or measured, but we are doing it best.

But before too many heads of agreement with Lord Auman, I point out that there is no evidence so far as I know that any of the other resources used in education are more cost-effective than computers and ancillary staff. They also add to the cost, and quantity of experience often to students.

Yours faithfully,  
GEOFFREY HUBBARD,  
Council for Educational Technology for the United Kingdom,  
3 Devonshire Street,  
London W1N 2BA

## Economics at school

Sir.—You report (THES, July 17) Lord Robbins, in his inaugural address to the Institute of Economics and Statistics, as saying that the introduction of economics into schools is deplorable. "I would not touch political science at all," he said, "and I would not touch mathematics and languages." I agree with what he says about the importance of the subjects, mathematics and English, but how does he justify his view that the introduction of economics into schools is deplorable?

Perhaps, so might we all as university teachers. But what about the needs of "all our nation's children"? Universities need to be enemies when they have failed in this who judge secondary education in terms of university preparation.

And "quintessentially grown up" subjects, protected states or trust territories, which the habits of the ruling class of the Crown's dominions (in the difference between citizens and subjects are being particularized before 18 plus, and this is in Scotland, when the Scottish Modern Schools Association has striven so hard and successfully, against a social and economic prejudice, to establish a separate system of education in Scotland in the past two years in which the importance of the subjects, mathematics and English, but how does he justify his view that the introduction of economics into schools is deplorable?

I agree with what he says about the importance of the subjects, mathematics and English, but how does he justify his view that the introduction of economics into schools is deplorable?

## Parliamentary sovereignty

In the case of Canada, however, successive British Governments have amended the British North America Act at the insistence of the Federal Parliament, forgetting that the Federal Parliament is not Canada. In theory of course (British theory that is) the United Kingdom Parliament could repeal the British Constitution Acts of Canada and Australia, and reduce them to colonial status. But geographical separation and jurisdictional practicality make this an improbable enterprise.

Nevertheless, the sovereignty of the Imperial Parliament might be more than a legal fiction if Scotland were to become a Republic, but remained a member within the Commonwealth. For India's benefit Parliament might be felt as more of a threat to Edinburgh that it is to Ottawa or Canberra. (For the same reason, federalism with the United Kingdom may be thought unattainable.)

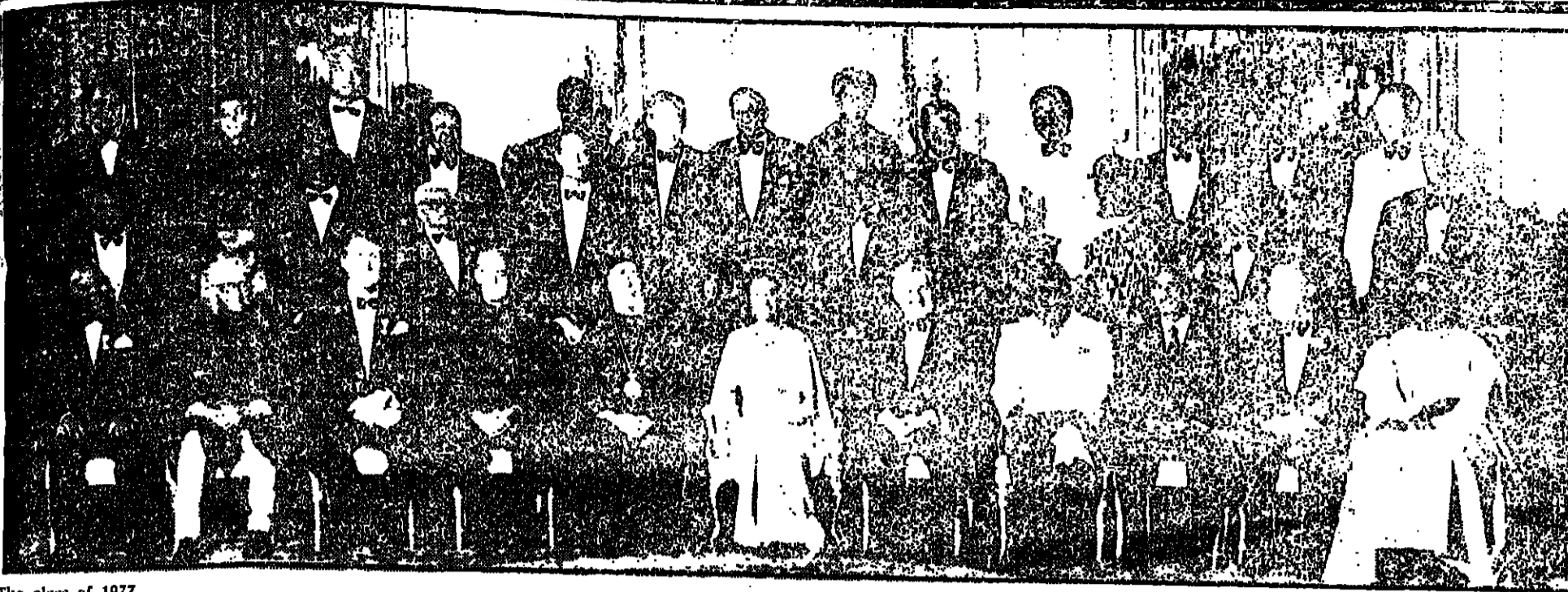
Two vestigial links between the United Kingdom and the Queen's Commonwealth realms are the Privy Council and the governor-general. Through the Judicial Committee of the Privy Council, appeals from the dependent territories, almost all the independent Commonwealth countries have established appeals. The Australian States, however, still enjoy the right of appeal by special leave. In the 1960s several suggestions were made for the institution of a Commonwealth Court of Appeal, but composed of members of Commonwealth countries, but no such development now seems likely.

As to the position of the governor-general, it may be noted that their ontological status is slightly mysterious. A governor-general is not the representative of the British Government, but the representative of the Queen, and has been appointed on the advice of the government of the Commonwealth country concerned, but it is not perhaps quite clear whether (in Australia for example) local ministers are advising the Queen of Australia, or the Queen of the United Kingdom. Dismissal of the governor-general also seems by convention to be available on demand by ministerial advice; though the only precedent occurred in 1932 when the governor-general of the then Irish Free State was removed at the instance of Mr De Valera.

The point might have been of vital importance to Mr Gough Whitlam in November 1975, when the Governor-General of Australia dismissed him and his government in order to resolve the parliamentary deadlock between the two houses. If Mr Whitlam had discovered what was in the governor-general's mind, he could have engineered a constitutional pre-emptive strike by advising the Queen to dismiss Sir John Kerr from his office as governor-general, and in all probability the Queen would have felt obliged to comply (though she might have staged a tactical delay long enough to enable the governor-general to wield the prerogative).

The prerogative of dismissal of a minister in the United Kingdom has not been clearly used since the late eighteenth century. Conceivably the Queen might feel entitled to use it if a British Prime Minister were to attempt to hold on to office after being defeated in a vote of confidence in the House of Commons.

If so, another Commonwealth precedent in the United Kingdom has not been clearly used since the late eighteenth century. Conceivably the Queen might feel entitled to use it if a British Prime Minister were to attempt to hold on to office after being defeated in a vote of confidence in the House of Commons.



## The Commonwealth: a constitutional curiosity

Geoffrey Marshall discusses the evolution of the legal and constitutional complexities that characterize Britain's relationship to the countries of the Commonwealth

Last month's Commonwealth Prime Ministers' Conference in London reminds us that such meetings are now one of the few visible signs of the existence of the Commonwealth. For it is an entity that, in some ways, looks like the expanding universe as described in a certain cosmological theory: its component parts are separating themselves from each other at an increasing rate, and the event that initiated the centrifugal process has been the subject of grave dispute. Possibly the "big bang" occurred in 1926 when the Balfour Declaration announced the existence of "autonomous communities within the British Empire equal in status, in no way subordinate one to another... though united by a common allegiance to the Crown and freely associated as members of the British Commonwealth of Nations."

Ever since then, constitutional entropy has been on the increase. Perhaps now the whole is less than the sum of its parts. What do we even call the whole? How do we name the parts? Not now the British Commonwealth, Not now the Dominions. Not now the Commonwealth and Empire.

When did the British Empire disappear? It was present and voting at the end of the First World War—a member in fact of the League of Nations. Winston Churchill used to speak of the Commonwealth and Empire between 1939 and 1945. In the sense in which it was used in the Balfour Declaration, the Empire disappeared between 1926 and 1931 when the newly autonomous parts became the "Dominions", and the still subordinate parts were left with their various dependent territories.

Some were colonies. Others were protected states or trust territories, which the habits of the ruling class of the Crown's dominions (in the difference between citizens and subjects are being particularized before 18 plus, and this is in Scotland, when the Scottish Modern Schools Association has striven so hard and successfully, against a social and economic prejudice, to establish a separate system of education in Scotland in the past two years in which the importance of the subjects, mathematics and English, but how does he justify his view that the introduction of economics into schools is deplorable?

I agree with what he says about the importance of the subjects, mathematics and English, but how does he justify his view that the introduction of economics into schools is deplorable?

## Membership decision

Where such a theory was contentious—as in Rhodesia—it has been diluted UDI; where done with Imperial approval and complicity, the more costly no effort to limit the damage attached. Either is a repudiation of the central sovereign authority of Westminster.

The other striking manifestation of that rejection is the thesis that membership of the Commonwealth is a matter for decision by all the members, and not for the United Kingdom. Commonwealth monarchies that have adopted republican forms of government have applied for continuation of membership, and have been given it by the prime ministers assembled at Commonwealth conferences.

South Africa followed the precedent of applying for membership, and in 1961 became a republic in 1961. The attitudes of the other members in fact persuaded South Africa to withdraw its application. Entry to full membership may be from outside the Queen's realms and territories (as with Cyprus) or from inside, in which case independent status, which is a requirement of full membership, depends upon the action of the United Kingdom.

If a newly-independent territory were denied full membership, it could of course remain a protectorate, and not for the United Kingdom. Commonwealth monarchies that have adopted republican forms of government have applied for continuation of membership, and have been given it by the prime ministers assembled at Commonwealth conferences.

South Africa followed the precedent of applying for membership, and in 1961 became a republic in 1961. The attitudes of the other members in fact persuaded South Africa to withdraw its application. Entry to full membership may be from outside the Queen's realms and territories (as with Cyprus) or from inside, in which case independent status, which is a requirement of full membership, depends upon the action of the United Kingdom.

The author is lecturer in politics and fellow of The Queen's College at Oxford.



Interpretations of South Africa

South Africa: A Modern History by T. H. R. Davanport...

A History of South Africa by Robert Lacour-Gayet...

The Politics of South Africa—Democracy and Racial Diversity by Howard Brotz...

The South African Economy (4th edition) by D. Hobart Houghton...

Public Policy and the South African Economy: Essays in Memory of D. Hobart Houghton...

Southern Africa by A. J. Christopher...

How Long Will South Africa Survive? by R. W. Johnson...

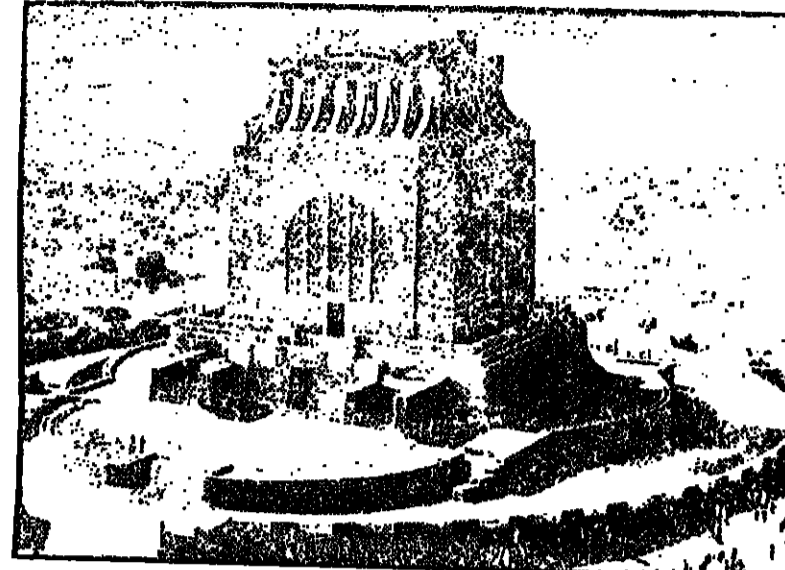
In the preface to his excellent book, South Africa: A Modern History, Rodney Davanport offers a concise and helpful summary of the progress of South African historiography...

This attempt to break free from a traditional approach which looked at South Africa from an imperial standpoint through the eyes of colonial officials has greatly benefited from the findings of anthropologists, archaeologists and historians...

This is not to suggest that South African historiography has been free of controversy, witness the mixed reception afforded the two volumes of the Oxford History of South Africa...

In his concluding chapter, Davanport shows an acute awareness of the contribution that younger scholars such as V. A. Johnson and Martin Legassick have made...

It is this belief in pragmatic advance stimulated by a strong and united Central Party which Brotz offers as his solution. In the concluding chapter of his book, Brotz subjects Fagan's ideas to a searching analysis which in itself is a model of lucid and logical argument...



The Voortrekker Monument in Pretoria, South Africa, which was inaugurated in 1949, the symbol of Afrikaner nationalism.

South African history which emphasizes the process of ethnic fusion and fusion occurring within the white party system. This has occurred on three occasions: in 1911 when Hereng and the National Party...

In the 1930s an 'effective majority' or centre coalition came into being in South Africa. It was formed by the United Party...

It is in this context that his second theme—the political ideas of Henry Fagan—come into play. As noted in the Native Languages Commission (1946-48) he had produced a report which emphasized the necessity of recognizing the permanence of the Afrikaner population...

Two related themes dominate the argument: that there was nothing inevitable about the victory and consolidation of Afrikaner nationalism in the post-war period and that the political ideas of the late Henry Fagan, a distinguished South African judge who died in 1963, have a contemporary relevance...

The amplification of his first theme requires an interpretation of the country's history. Davanport's main approach is that of the liberal Afrikaner...

of orthodox political theory for an understanding of societies as complex as South Africa. Not surprisingly, Burke, Taine and de Tournay are Brotz's (and Fagan's) intellectual mentors.

This work will irritate both liberals and Marxists alike: it respects both in part of Burke and the Marxist. One may disagree with his choice of historical inevitability. Nevertheless, there is enough hard analysis in the chapters on economics and politics...

It would have been interesting to have seen the reaction of the late D. Hobart Houghton to Brotz's volumes. One of South Africa's most distinguished economists...

Here the distinctive, rational voice of the economic liberal comes through, pressing for an equitable distribution of the national income in terms of effort and ability, unhampered by differential devices...

This view should be contrasted with the counter-arguments of Hobart Blumer and Sheila van der Horst, two scholars whose work is alluded to in Davanport's volume.

and this emerges clearly in Public Policy and the South African Economy, a collection of essays...

The Pan paperback is said to be based on the Mannheim Rechnungen and it can indeed be called 'universal' in its coverage as long as one first fixes on about A level and a few first year university topics and a fair sprinkling of what are now fun-topics...

There are a few strange entries, e.g. 'fiscal numbers' are 'represented by letters of an alphabet'—presumably elementary algebra is intended but is not mentioned...

Transport and the Environment by Clifford Sharp & Tony Jennings, Leicester University Press, £3.50 ISBN 0 7185 1133 6

Transportation and the Environment by John Hutchins, Elek, £2.25 ISBN 0 236 400 23 1

The Government has just published a Transport White Paper. It is nearly ten years since the last major transport enactment and, if one wishes to judge changes in opinion and sentiment over that period, one can do no better than compare corresponding documents in terms of their concern for environmental problems...

One such conventional idea is that the railways are environmentally 'pure'. The authors are sceptical. Their evidence is that, in practice, railways do not compare favourably with other modes of transport...

The facts of maths

The Universal Encyclopedia of Mathematics foreword by J. R. Newman, Pan, £1.50 ISBN 0 330 24396 9

The Encyclopedia of Mathematics and its Applications, volume 1 Integral Geometry and Geometric Probability by L. A. Santaló Addison Wesley, £15.60 ISBN 0 201 13500 0

Integral geometry is a development of what the nineteenth century called geometric probability, exemplified by Buffon's needle problem which asks for the probability that a needle placed at random on a plane, on which are spread a family of parallel lines...

Professor Rottenburg's terminology. But, if this is so, why include, as an externally, road wear and tear (subject of a separate chapter with an interesting proposal for a road wear tax), when wear and tear is, in effect, already charged for by licence fees and fuel duty, albeit imperfectly...

What really inspires modern physics is the conviction that the basic laws are very simple, but very rich in their implications. All that is lost in the conventional guided tours from atoms to nuclei to quarks; and from atoms through condensed matter to stars and cosmology.

lay reader turns out to have the same emphasis on clarity and accuracy as an engineer's blueprint and to be about as dull. What really inspires modern physics is the conviction that the basic laws are very simple, but very rich in their implications.

John M. Charap has really happened is that a new meaning has been given to the word 'elementary'.

Halogens

Electrophilic Halogenation by Peter H. D. de la Mare Cambridge University Press, £10.50 ISBN 0 521 20968 4 and 20014 7

This volume is the most recent addition to the interesting and valuable series Cambridge Chemistry Texts. It is concerned not merely with the reactions of the halogens themselves but also with those of the many more complex species in which characteristic halogen electrophilic character is observed.

The book begins with three general, introductory chapters: one on terminology, definitions and methods of study, one on the bonding and non-bonding properties of the halogens, and one on the general patterns of reactions of electrophiles with unsaturated compounds. These three together make up a quarter of the book, and one wonders whether a little more merely surface available material is quite concentrated—might perhaps have been preferable.

The main text consists of chapters on the reactions of the halogens with unsaturated compounds as electrophiles, reactions of molecules of chlorine with unsaturated compounds, chlorination by chlorinating species other than molecular chlorine, the bromination of unsaturated compounds, the iodination of unsaturated compounds...

Concerning future trends the authors make themselves hostages to fortune by categorically denying the practical realisation in high voltage microscopy (electron energy 500 KeV-1 MeV) of improved resolution as against machines of the more conventional type (electron energy circa 100 KeV). Project to this end are currently in progress at Cambridge (CTEM) and Chicago (STEM), and in a related context, experiments are at an advanced stage directed towards the direct correction of both the spherical and chromatic aberrations of the electron lens.

Solids study

Electron Microscopy in the Study of Materials by P. Grundy and G. A. Jones Edward Arnold £8.00 and £3.75 ISBN 0 7131 2521 7 and 2522 5

This book aims to describe at an introductory level the electron microscope and its use in the study of solid materials, excluding materials of biological interest.

The intended readership is both undergraduates and postgraduate as well as research scientists in industry. However, the book is a contender only for the undergraduate market. More specialist books, some of which the authors refer to, would be more appropriate for an introduction to research.

The processes of interaction of electrons with solids are described to form a basis for discussions of future trends of applications, and of the construction, applications, and theoretical transmission electron microscope (TEM), scanning electron microscope (SEM) and scanning transmission electron microscope (STEM).

Former ground is reached in the applications of CTM and SEM. The authors are given for CTM, of example, electron extinction fringes, bond contours and stacking faults; and for SEM of the principal reflection and transmission modes, X-ray and Auger-electron production, cathodoluminescence, etc.

Concerning future trends the authors make themselves hostages to fortune by categorically denying the practical realisation in high voltage microscopy (electron energy 500 KeV-1 MeV) of improved resolution as against machines of the more conventional type (electron energy circa 100 KeV). Project to this end are currently in progress at Cambridge (CTEM) and Chicago (STEM), and in a related context, experiments are at an advanced stage directed towards the direct correction of both the spherical and chromatic aberrations of the electron lens.

A polluting yet necessary evil?

Transport and the Environment by Clifford Sharp & Tony Jennings, Leicester University Press, £3.50 ISBN 0 7185 1133 6

Transportation and the Environment by John Hutchins, Elek, £2.25 ISBN 0 236 400 23 1

The Government has just published a Transport White Paper. It is nearly ten years since the last major transport enactment and, if one wishes to judge changes in opinion and sentiment over that period, one can do no better than compare corresponding documents in terms of their concern for environmental problems...

One such conventional idea is that the railways are environmentally 'pure'. The authors are sceptical. Their evidence is that, in practice, railways do not compare favourably with other modes of transport...

John M. Charap has really happened is that a new meaning has been given to the word 'elementary'.

Physics without passion

From Quarks to Quasars: an Outline of Modern Physics by Edward Thomas Macdonald Press, £3.95 ISBN 0 485 12024 0

Who reads books like this? Dr Thomas has written a careful and balanced survey of modern physics with a minimum of mathematics and a breadth indicated in its title.

lay reader turns out to have the same emphasis on clarity and accuracy as an engineer's blueprint and to be about as dull. What really inspires modern physics is the conviction that the basic laws are very simple, but very rich in their implications.

lay reader turns out to have the same emphasis on clarity and accuracy as an engineer's blueprint and to be about as dull. What really inspires modern physics is the conviction that the basic laws are very simple, but very rich in their implications.

lay reader turns out to have the same emphasis on clarity and accuracy as an engineer's blueprint and to be about as dull. What really inspires modern physics is the conviction that the basic laws are very simple, but very rich in their implications.

Advertisement for electrical technology and engineering science textbooks, listing titles like 'Electrical Technology (SI)', 'Engineering Science in SI Units', and 'Principles of Electricity in SI Units'.





**UNIVERSITY OF GUYANA**  
 Vacancy-Department of Biology  
 Applications are invited for the post of

**LECTURER**  
 in  
**TERRESTRIAL ECOLOGY**  
 with a botanical bias.

Applicants must have a higher degree, preferably a PhD. Preference will be given to applicants with knowledge and experience in tropical ecology. University teaching and research experience will be an advantage.  
 Salary Scale (per annum) =  
 Lecturer UA3: G\$9,000-\$14,780. (\$1 U.S.) = \$2.65 (Guyana)  
 Point of entry on the scale will be determined by qualifications, relevant experience, research and publications.  
 Anyone recruited from overseas will be provided with up to four (4) full economy air fares (for himself, wife and unmarried children up to eighteen (18) years of age), housing removal expenses, a settling-in allowance and housing allowance will be paid. Vacation/Study leave after three (3) consecutive years of service with the University and upon renewal of contract. Contributory medical and pension schemes in operation.  
 Applications (3 copies) stating date of birth, qualifications and dates obtained, experience (with dates), names and addresses of three referees (one of the referees must be your present or last employer where appropriate), must reach the Personnel Section, University of Guyana, P.O. Box 841, Georgetown, Guyana, South America, before July 8, 1977.  
 (Please quote ref. THB77)

**BELFAST**  
 The Queen's University  
 Department of Pure and Applied Physics  
**RESEARCH FELLOW IN ASTROPHYSICS**

This appointment, to commence in 1978, will be made initially for one year but is renewable annually for a further two years. The successful candidate will join the Astrophysics and Atmospheric Physics research group and will participate in programmes which include ultraviolet and infrared studies using balloon-borne spectroscopy and observation from the International Ultraviolet Explorer satellite.  
 Candidates should preferably possess a PhD degree and have some relevant experience in spectroscopy, optics or astrophysics. Applications and experience and within the range £3,333 to £4,400 per annum, with superannuation.  
 Applications giving full details of academic record and experience, and the names and addresses of two referees, should be sent to the Personnel Officer, The Queen's University of Belfast, Belfast BT7 1NN, before 12th August 1977.  
 (Please quote ref. THB77)

**UNIVERSITY OF THE WEST INDIES TRINIDAD**  
 Applications are invited for two posts of

**LECTURER/ASSISTANT LECTURER IN COMPUTER SCIENCE**

to teach Data Processing and Systems Analysis to Social Science students and scientific programming to Agriculture, Science and Engineering students. Salary: Lecturer 1977/78 T\$10,071-T\$22,798 p.a. Assistant Lecturer 1977/78 T\$15,486-T\$16,974 p.a. (1978/79 T\$17,124). FSSU. Upstairing accommodation if available at 20% or housing allowance. Up to the full economy air fares on appointment and seasonal termination. Study and Travel Grant.  
 Detailed application naming three (3) referees to Secretary, UWI, St Augustine, Trinidad, details of posts sent to applicants.

**BATH**  
 THE UNIVERSITY  
 Applications are invited for a

**LECTURER IN INDUSTRIAL PHYSICOLOGY**

Further particulars and application forms are obtainable from the Secretary, University of Bath, Bath BA2 9AY. Closing date for applications 14.7.77.

**LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY**

**Mathematics Research**

Applications are invited from suitable qualified individuals for a RESEARCH FELLOWSHIP in the Department of Mathematics, to work in the field of group theory. Applicants should hold, or shortly expect to obtain, a PhD in an area of functional analysis, and should wish to apply their pure mathematics to areas in applicable mathematics. A knowledge of control theory is desirable but not essential.  
 The Fellowship is University supported and will be for three years duration with a salary scale of £3,333-£6,627. Porting requests for further details and application forms to Paul Johnson, Establishment Officer, Ref. 77/251A, Loughborough, Leicestershire.

**ESSEX**  
 THE UNIVERSITY  
 RESEARCH OFFICER IN THE DEPARTMENT OF BIOLOGY

Applications are invited for a post of Research Officer in the Department of Biology. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Essex, Colchester, Essex, before 12th August 1977.

**HONG KONG**  
 THE UNIVERSITY  
 LECTURER/ASSISTANT LECTURER IN POLYMER SCIENCE

Applications are invited for a post of Lecturer/Assistant Lecturer in Polymer Science. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Hong Kong, before 12th August 1977.

**UNIVERSITY OF STRATHCLYDE MANAGEMENT SYSTEMS OFFICER**

Applications are invited for the above post from graduates or holders of a relevant qualification. The successful candidate will have responsibility for the design and implementation of management systems and will be responsible for the day-to-day running of the department's research programmes. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Strathclyde, before 12th August 1977.

**ESSEX**  
 THE UNIVERSITY  
 DEPARTMENT OF CHEMISTRY  
 TEMPORARY LECTURERSHIP

Applications are invited for a one-year temporary lecturership in the Department of Chemistry. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Essex, before 12th August 1977.

**LONDON**  
 QUEEN MARY COLLEGE  
 DEPARTMENT OF GEOGRAPHY

Applications are invited for the following positions:

**LECTURER OF SENIOR LECTURER IN ECONOMIC GEOGRAPHY**  
 Applicants should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, Queen Mary College, before 12th August 1977.

**LONDON**  
 QUEEN MARY COLLEGE  
 DEPARTMENT OF GEOGRAPHY

Applications are invited for the following positions:

**LECTURER OF SENIOR LECTURER IN ECONOMIC GEOGRAPHY**  
 Applicants should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, Queen Mary College, before 12th August 1977.

**MIDDLESEX**  
 THE UNIVERSITY  
 RESEARCH OFFICER IN THE DEPARTMENT OF BIOLOGY

Applications are invited for a post of Research Officer in the Department of Biology. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Middlesex, before 12th August 1977.

**NEW ZEALAND**  
 UNIVERSITY OF CANTERBURY  
 DEPARTMENT OF GEOGRAPHY

Applications are invited for the following positions:

**LECTURER OF SENIOR LECTURER IN ECONOMIC GEOGRAPHY**  
 Applicants should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Canterbury, before 12th August 1977.

**NEW ZEALAND**  
 UNIVERSITY OF CANTERBURY  
 DEPARTMENT OF GEOGRAPHY

Applications are invited for the following positions:

**LECTURER OF SENIOR LECTURER IN ECONOMIC GEOGRAPHY**  
 Applicants should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Canterbury, before 12th August 1977.

**Universities continued**

**SULTANATE OF OMAN**  
 CENTRE OF MIDDLE EASTERN STUDIES  
 BIOMEDICAL DEVELOPMENT PROJECT

Applications are invited for the following positions:

**LECTURER OF SENIOR LECTURER IN ECONOMIC GEOGRAPHY**  
 Applicants should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, Sultanate of Oman, before 12th August 1977.

**SALFORD**  
 THE UNIVERSITY  
 RESEARCH OFFICER IN THE DEPARTMENT OF BIOLOGY

Applications are invited for a post of Research Officer in the Department of Biology. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Salford, before 12th August 1977.

**manchester polytechnic**

**M.A. Art Education (C.N.A.A.)**  
 3 yrs Part time (evenings)

**Postgraduate Diploma in Art Education (C.N.A.A.)**  
 2 yrs Part-time (evenings)

These recently approved courses are linked so that students may progress to the Masters Course if they are not qualified for direct entry, completing both courses in a total of four years.  
 These taught courses have been designed to examine the theoretical foundations of Art and Design education and to engage students in research.  
 Applications are invited for admission to the courses, commencing in October 1977, from qualified teachers with three years experience, or from others professionally engaged in any aspect of Art & Design Education. Applicants should normally hold one or more of the following qualifications: NDD/Dip. A.D./G.A. (Art & Design)/B.Ed./A.T.C./A.T.P./G.C.E. at an acceptable standard. Exceptionally, holders of the Teacher's Certificate may be considered, as may holders of alternative professional qualifications.  
 Please write for further details to: Mr R. Hart, The Centre for Art & Design Education, The Department of Education, Manchester Polytechnic, John Dalton Extension, Chester Street, MANCHESTER M1 6GD.

**SOUTHAMPTON**  
 THE UNIVERSITY  
 RESEARCH OFFICER IN THE DEPARTMENT OF BIOLOGY

Applications are invited for a post of Research Officer in the Department of Biology. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Southampton, before 12th August 1977.

**WARWICK**  
 THE UNIVERSITY  
 TEMPORARY LECTURERSHIP

Applications are invited for a one-year temporary lecturership in the Department of Chemistry. The successful candidate will be responsible for the day-to-day running of the department's research programmes and will participate in the design and execution of research projects. The post is full-time and involves a high degree of responsibility. The successful candidate should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of Warwick, before 12th August 1977.

**ULSTER COLLEGE**  
 The Northern Ireland Polytechnic  
 Faculty of Social and Health Sciences

**PRINCIPAL LECTURER IN PSYCHOLOGY**  
 to make a senior contribution to the organisation, teaching and research of the School.  
**LECTURER I OR II IN OCCUPATIONAL OR INDUSTRIAL PSYCHOLOGY**  
 to develop teaching and research in Occupational or Industrial Psychology.  
**LECTURER II OR SENIOR LECTURER IN SPEECH THERAPY: 2 posts**  
 To assist in the teaching of Principles and Practice of Speech Therapy and Speech Pathology on the B.Sc. Speech Therapy research and curriculum development in the area.  
 Applications should be sent to the Personnel Officer, Ulster College, before 12th August 1977.

**ST. ANDREWS**  
 THE UNIVERSITY  
 DEPARTMENT OF LOGIC AND METAPHYSICS

Applications are invited for the following positions:

**LECTURER OF SENIOR LECTURER IN ECONOMIC GEOGRAPHY**  
 Applicants should have a PhD in a relevant field and have experience in the management of research projects. The salary scale is £3,333-£4,400 per annum, with superannuation.  
 Applications should be sent to the Personnel Officer, University of St. Andrews, before 12th August 1977.

**LANCHESTER POLYTECHNIC**  
 Coventry - Rugby  
 Faculty of Social Science

Applications are invited for the post of

**Head of Department**

Department of Legal Studies

To succeed the late Dr. W. Frank Solary. Head of Department: Grade V £7,395-£8,271 per annum plus £312 plus £180 supplements.  
 Application forms and further particulars are available from the Director, Lanchester Polytechnic, Priory Street, Coventry CV1 5FB, returnable by 1st August, 1977.

**manchester polytechnic**

**M.A. Art Education (C.N.A.A.)**  
 3 yrs Part time (evenings)

**Postgraduate Diploma in Art Education (C.N.A.A.)**  
 2 yrs Part-time (evenings)

These recently approved courses are linked so that students may progress to the Masters Course if they are not qualified for direct entry, completing both courses in a total of four years.  
 These taught courses have been designed to examine the theoretical foundations of Art and Design education and to engage students in research.  
 Applications are invited for admission to the courses, commencing in October 1977, from qualified teachers with three years experience, or from others professionally engaged in any aspect of Art & Design Education. Applicants should normally hold one or more of the following qualifications: NDD/Dip. A.D./G.A. (Art & Design)/B.Ed./A.T.C./A.T.P./G.C.E. at an acceptable standard. Exceptionally, holders of the Teacher's Certificate may be considered, as may holders of alternative professional qualifications.  
 Please write for further details to: Mr R. Hart, The Centre for Art & Design Education, The Department of Education, Manchester Polytechnic, John Dalton Extension, Chester Street, MANCHESTER M1 6GD.

**NEWCASTLE UPON TYNE POLYTECHNIC**  
 Department of Behavioural Studies

**LECTURER II IN SOCIAL RESEARCH METHODS**  
 Required to teach on the Social Research branch of the Sociology degree. Applicants should possess a higher degree in a relevant area. Proven experience in empirical research essential.  
 Department of Health Studies  
**LECTURER II IN CLINICAL NURSING**  
 To be responsible for teaching undergraduate student nurses, both in the Polytechnic and in the clinical area, in connection with the BA Nursing Degree. Applicants should preferably be nurse teachers with a wide experience in nursing, possession of a first degree and specialist nursing qualifications an advantage.  
 Burnham FE Lecturer II £3,278-£5,483 plus £312 and up to £180 supplements.

**RESEARCH ASSISTANTS**  
 (£2,440-£2,800 plus £312 and £182 supplements)

Department of Industrial Design  
 Required in the Handicapped Persons' Research Unit to work on a design research project concerned with furniture for handicapped children. Applicants should be suitably qualified industrial designers with research experience.  
 Department of Chemistry  
 Required to work on one of the following projects: trace metal determination in the environment; Raman spectroscopy of electrolyte systems; gas chromatography/mass spectrometry of drug metabolites; protein and peptide synthesis. Applicants should have good Honours Degree in Chemistry or Joint Honours including Chemistry.  
 Department of Librarianship  
 Required to investigate Library User Education in Schools. Applicants should have a qualification in Librarianship. Relevant experience in schools an advantage. In each case, the successful candidate will be expected to register for a higher degree. The Assistantships are initially for a fixed period of two years.  
 For further particulars and application forms, returnable by 1st August, 1977, please send stamped addressed foolscap envelope to Staffing Officer, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne NE1 8BT.

**RICHMOND COLLEGE, LONDON**

The Governors invite applications for the following posts in the rapidly developing independent university college, which is licensed to award the A.A. degree by the Board of Higher Education in Washington, D.C., and has a multi-national student body of 300.

**HEAD OF FACULTY OF ENGLISH AND HUMANITIES**  
 Salary Scale £5,500-£6,000

This is a key post offering scope for the development of courses in the Humanities. Duties include teaching 12 hours of English Literature courses per week, counselling students and supervising a large visiting staff. Candidates should have a Ph.D. and/or good first degree and have experience of degree level teaching and course planning. Application forms may be obtained from the Principal, Richmond College, Queens Road, Richmond, Surrey, and should be returned as soon as possible.

**LANCHESTER POLYTECHNIC**  
 Coventry - Rugby  
 Faculty of Social Science

Applications are invited for the post of

**Principal Lecturer in Building Technology**

£5,840-£6,642 (bar)-£7,878 plus supplements of £482 p.a.

Candidates should hold either a degree or diploma in Building and cooperate membership of an appropriate professional institution. Possession of a higher degree obtained by research is also desirable.  
 Further particulars and form of application obtainable from The Chief Administrative Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. A self-addressed foolscap envelope will assist with the speedy despatch of documents. Closing date, 22nd July, 1977.

**TRENT POLYTECHNIC NOTTINGHAM**



General Vacancies continued

**BUTTERWORTH**  
Publisher's Editor  
Economics & Business Studies

Butterworth, leading academic publishers, wish to appoint a person with experience in teaching business studies to a new post of Economics and Business Studies Editor.

The post is essentially concerned with recommending new books for publication in these fields and involves negotiations with suitable authors. The work is carried out in a commercial context and requires an ability to assess market trends and to form sound commercial judgments. The successful applicant will receive appropriate training under the personal supervision of a publishing director.

A certain amount of travel around colleges and universities in the United Kingdom is necessary for which a company car is provided.

The Company is located near Sevenoaks in pleasant rural surroundings. Salary will be in the region of £4,500.

Applications in writing to Personnel Department, Butterworth & Co. (Publishers) Ltd., Basted, Borough Green, near Sevenoaks, Kent TN15 8PH.

○○○○○○○○○○  
**BBC**

German Language Service sucht  
PROGRAMME ASSISTANTS  
(Kurzzzeitvertrag, drei Jahre)

Bewerber mit perfektem Deutsch sollen Erfahrung im Übersetzen englischer Texte und eine gute Mikrofonstimme besitzen. Journalistische Erfahrung wäre ein Vorteil.

Gehalt: £4,370 pro Jahr, nach sechs Monaten auf £4,780 und nach weiteren sechs Monaten erfolgreiches Tätigkeit auf £4,952 steigend. Schichtarbeit: Zulage £234 pro Jahr. Ausserdem ein monatlicher Zuschlag von £17.38.

Schriftliche oder telefonische Anfragen unter 77.X.7.TH an: Recruitment Officer, BBC, P.O. Box 78, Bush House, Strand, London WC2B 4PH. Telephone: 01-240 3468, Ext. 2898.

Bitte adressieren Umschlag belegen.  
○○○○○○○○○○  
**BBC**

Laurence Urdang  
require

Experienced Reference-Book Editors

to work on the compilation of dictionaries, encyclopaedias and other reference books. The successful applicant will join a lively team in the Company's pleasant offices in Aylesbury.

\* An ability to write clearly and accurately and to distinguish between close meanings of words.

\* Previous experience of publishing, editing, or teaching.

\* A good honours degree or similar qualification. Applicants should write giving a full c.v., stating subjects in which they have a particular interest.

Dr. Alan Isaacs, Laurence Urdang Associates, Market House, Market Square, Aylesbury, Bucks.



Does a problem challenge you to solve it?

If you've always enjoyed flexing your mental muscles, become an Inspector of Taxes. Your job? To determine the tax liability of individuals and of companies large and small. Your staff (up to 40 strong) handle all cases in accordance with the law you will receive with you because of your personality which enables you to negotiate with the taxpayers. You'll be a professional adviser on equal terms and - above all - because you have the flair for analysing a complex situation and making a fair and reasonable judgement.

During your career you could take charge of the tax affairs of an entire district enjoying wide powers of discretion. You may also spend periods on more specialised aspects of taxation and acquire an enviable professional expertise - in itself a valuable career asset. Qualifications: Under 32. A Degree with honours - a 1st, 2nd class honours ability is looked for. Final Year Students may apply.

Starting salary £2,840-£4,500 according to experience. If you start at 21, your salary should be over £3,700 a year; over £4,100 at 27. In a post within the Inspectorate or in general management in the Civil Service taking you to £11,000. There are vacancies all over the country. Salaries higher in London.

To find out more and for an invitation to visit a Tax Inspector, write to: Civil Service Commission, Alison Clark, Basingstoke, Hants RG21 1JF. Please quote A/2501/T/HS

**HONOURS GRADUATES**  
Career that appeals to reason

Overseas

**Revitalised economy  
superb location**

Together with most other countries, Zambia has been affected by the worldwide economic recession. Our economy is surging forward strongly again, partly by significant advances in the world market. Industry and rising export prices on world markets here on a 3-year contract and your skills will be broadened. You'll enjoy the warm, pleasant climate of this totally land-locked country, larger than France, the Netherlands and Switzerland combined. The scenery too, although mainly a broad plain, is also features: spectacular mountains, a certain arid, dense forest, imposing rivers, vast lakes and game reserves. Its many large cities and towns have the normal modern facilities and are linked by roads and rail services.

Staff Training Officer

Accounts/Financial Management - in the field  
Prime Minister  
K3288-K6324 (c. £2391-£4599)  
Supplements up to £4512 (married), £384 (single)

Requirements:

Candidates should be members of either the Institute of Cost and Management Accountants or Association of Certified Accountants with at least three years post-graduate practical teaching experience in Accounts to set up to final examinations of the above Accountancy Association of Certified Accountants

Responsibilities:

Successful candidates will be required to mount a training course for the foundation stage of the accountancy of the Institute of Cost and Management Accountants Association of Certified Accountants

Accountant

Ministry of Finance  
K3288-K6324 (c. £2391-£4599)  
Supplement up to £4554 (married), £384 (single)

Requirements:

ACA, ACCA or ICMA  
Financial, economic and administrative investigation of Civil Service and Parastatal organisations.

Strong financial attractions

As well as the salary quoted, you will enjoy TAX free supplements, a TAX-FREE terminal gratuity, long accommodation, low taxation and free passages. In addition these add up to exceptional real earnings. Starting salaries relate to qualifications/experience, while grants up to 25% of basic salary. Salary-related supplements are granted annually and paid by the British Government to develop British nationals (annual maximum is shown). Appointment grants, education allowances, or medical aid assistance and free holiday visits for those educated in Britain are also provided for these supplements. N.B. Sterling equivalents given are approximate only due to constant exchange rate fluctuations. For further details please send full personal/professional details (without obligation and in total confidence) to: Recruiting Officer (Room 11), Zambia High Commission, 7-11 Cavendish Place, London, W.1.



**PERTH, WESTERN AUSTRALIA  
VAGANCIES IN  
TEACHER EDUCATION**

Applications closing on Monday, August 8, 1977, are invited for the following positions, which may become vacant in 1978 at the Western Australian Secondary Teachers College. Some appointments may be available on a 1-year contract basis.

Appointees will undertake teaching responsibilities of secondary teachers in training in the following areas: Business Education, Communications, Mathematics, Physical Education, Health and Recreation, Science.

**SALARY RANGE:** Lecturer £8,007 to £11,330  
Senior Tutor £7,408 to £8,487  
Tutor £6,695 to £7,190

**QUALIFICATIONS:** A higher degree in an appropriate field together with teaching experience at secondary or tertiary level is generally required.

Application forms, detailed statements regarding duties and qualifications for individual positions, and conditions of service, may be obtained from:  
Migration Liaison Officer  
Western Australia House  
115 Strand, London WC2R 0AJ

Fellowships and Studentships

**BRADFORD  
UNIVERSITY**  
INSTITUTE OF EDUCATION  
RESEARCH STUDENT

A Research Student is required in the area of Social Science. The post is part-time, involving approximately 12 hours per week. Applicants should be holders of a degree in a relevant field. The subject areas of interest are: Education, Social Science, and other related disciplines. The successful candidate will receive a stipend of £4,500 per annum, plus a small allowance for travel and other expenses. Applications should be sent to the Director of the Institute of Education, Bradford University, Bradford, West Yorkshire, BD9 4JQ.

**CLASSES  
ADVISED  
ADVERTISEMENTS**

Overseas continued

**COLLEGE OF TECHNOLOGY  
CALABAR, NIGERIA**

Applications are invited for posts in the following areas:

**BUSINESS STUDIES**

Principal Lecturer, Senior Lecturer  
In Accounting, Management and Cost Accounting, Taxation, Management, and Business Studies.

**CIVIL ENGINEERING**

Senior Lecturer and Lecturers:  
In Soil Mechanics, Highway Engineering, Structures, Hydraulics and Irrigation, Water Supply and Sewerage Disposal, and other related disciplines.

**ELECTRICAL ENGINEERING**

Principal Lecturer, Senior Lecturer, Lecturers, Principal Technical Instructors and Technical Instructors:  
In Control and Computer, Electronics, Telecommunications, Power, Machines, Structures and Transmission, Supply and Utilization, Energy Conversion.

**ENVIRONMENTAL STUDIES**

Principal Lecturer, Senior Lecturer, Lecturers:  
In Archiving, Land Surveying, Quantity Surveying, Town Planning, Building Surveying, Valuation and Estate Management.

**MECHANICAL ENGINEERING**

Principal Lecturer, Senior Lecturer, Lecturers:  
In Thermodynamics, Refrigeration, Production Engineering, Automobile Engineering, Theory of Machines, Fluids, Strength of Materials, and other related disciplines.

**LANGUAGE AND COMMUNICATION**

Principal Lecturer, Senior Lecturer, Lecturers:  
In English (Technical Communication, Journalism)

**NATURAL & APPLIED SCIENCES**

Lecturers and Senior Technical Instructors:  
In Physics and Biology

**CONDITIONS OF APPOINTMENT**

For all teaching posts, a degree, appropriate professional qualifications, industrial/commercial experience and some years' experience of lecturing up to Higher National Diploma level is required. Further details will be enclosed on request.

**SALARY RANGE**

	Annual	Tenured	Contract
Principal Lecturer	£8,447-£12,400	£11,511-£15,810	£11,511-£15,810
Senior Lecturer	£5,748-£8,447	£7,771-£11,108	£7,771-£11,108
Lecturer	£3,276-£5,748	£4,596-£7,408	£4,596-£7,408
Senior Technical Instructor	£2,125-£3,276	£2,848-£4,596	£2,848-£4,596
Technical Instructor	£1,588-£2,125	£2,125-£3,276	£2,125-£3,276

Contract appointments may be available to British Nationals. Foreign nationals may apply for appointments, but will receive a 10% allowance on salary. Further details and application form should be obtained by telephone, telegram or urgent mail from KENFORD ASSOCIATES, 46 Warren Road, Guildford, Surrey GU1 2HE. Telephone: Guildford (0483) 68877.

INTERVIEWS WILL TAKE PLACE DURING JULY.

**LETTERS TO THE EDITOR**  
The consecutive-concurrent issue

Sir, Having left Northern Ireland only two years ago I know how easy it is in a threatening situation to polarise a crucial issue. I would therefore beg Francis Wright, Bill Brown, the NAEU, and your leader 'The Editor', the *THES*, June 24, not to polarise the consecutive-concurrent issue in teacher-education. The desirable predominance of concurrent teacher-education for primary teachers is certainly being threatened but the polarisation of the issue will only damage our cause. All parties should consider whether the concept of varying degrees of concurrence provides a more fruitful basis for the future than the unnecessary dichotomy between concurrent and consecutive courses. We can then unite in arguing that a high degree of concurrence is necessary for primary and middle-school teachers while a lower degree of concurrence is acceptable for upper-school and further-education teachers. For the latter categories the type of educational studies to be included in the concurrent degree or DipHE courses could then become the central issue. Within this conciliatory framework, it is not inevitable that large, multi-purpose institutions abandon the concurrent model in order to provide a delayed and informed choice of commitment for potential teachers. We can have the best of both worlds. For instance, in March, 1977, Sunderland Polytechnic had validated by the CNAEA a

Mr Robinson's letter, however, made it clear that his distress was genuine and deep, and I am truly sorry to learn that my reply was not so comforting to him as he would like to believe. It is more fruitful when it is expressed with energy and respect to foster those qualities which have been the main theme of the *Year's Work in English Studies* for more than half a century, and much of the critical debate in this country is conducted with fairness of mind and generosity of spirit. But in his *THES* review Mr Robinson, having quoted a paragraph from volume 55 on Peter M. Versner's *Quarterly Review of Anglo-American Letters*, criticised my 'speculative' and 'offensive' remark about that scholar and that journal. The *Dubious* has been brought in from oblivion in order to judge my critical insights and serious shortcomings, but what these serious shortcomings are, or what these insights, who can tell? These who trouble to read the recommended article. Yours faithfully, JAMES REDMOND, Editor, *The Year's Work in English Studies*.

**English studies**

Mr Robinson's review of volume 55 of *The Year's Work in English Studies* (YWES, June 24) offers an engaging proposition. YWES is one perfect and unmistakable embodiment of an establishment, a group of people in power and too far from the threat of opposition to feel any need to innovate. It would be a good crude test for membership of the English literary establishment to be approved in YWES. In volume 55 we drew attention to the published work of more than 200 scholars and critics, and despite Mr Robinson's suspicion—not a high proportion of those approved are presumably known to the editors or contributors. Your reviewer believes that we exercise malicious discrimination. Some after the publication of volume 53 of *The Year's Work in English Studies*, Mr Robinson wrote to the *THES* in relation to a letter written by me about the review of his book *Chaucer and the English Tradition*. This review (YWES, 63, 107-8) was written by one of the most accomplished of our 'specialists'. 'It is a challenge', he said. 'I use Mr Robinson's terms, but not his tone—and it still seems to me a model of judicious expression, being informed, sensitive, and well expressed by precision.'

**OVERSEAS DEVELOPMENT**  
KNOW-HOW vital to developing countries

Technical Education Overseas Turkey  
**Industrial Metallurgist (Foundry)**

At Middle East Technical University, Ankara, to assist development of research facilities in Metallurgical Engineering Department, advise on course development, identify disciplines, possible candidates for UK training and undertake some lecturing. Applicants aged 35-50 should have degree or equivalent qualification in metallurgy or material technology with Chartered Engineering status, Ph.D. in relevant specialism essential. Must have considerable experience in industrial foundry processes. Teaching experience at University or Polytechnic level preferred. Appointment 2 years. Salary in accordance with qualifications and experience plus variable tax-free allowance. Superannuation rights may be safeguarded. The post is wholly financed by the British Government under British programme of aid to developing countries. In addition to basic salary and overseas allowances other benefits normally include paid leave, free family passages, children's education allowance and holiday visits, free accommodation and medical attention. Applicants should be citizens of the United Kingdom. For full details and application form please apply quoting ref 317 stalling post concerned, and giving details of age, qualifications and experience to:

Appointments Officer,  
MINISTRY OF OVERSEAS DEVELOPMENT,  
Room 301, Eland House,  
Stag Place, London SW1E 5DH.

HELPING NATIONS HELP THEMSELVES

**ODM**